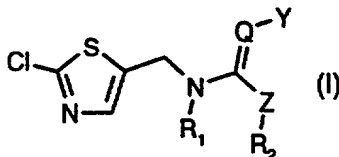


What is claimed is:

1. A process for the preparation of a compound of the formula



and, where applicable, its E/Z-isomers, mixtures of E/Z-isomers and/or tautomers, in each case in free form or in salt form, wherein

Q is CH or N,

Y is NO<sub>2</sub> or CN,

Z is CHR<sub>3</sub>, O, NR<sub>3</sub> or S,

R<sub>1</sub> and R<sub>2</sub> are either each independently of the other hydrogen or unsubstituted or R<sub>4</sub>-substituted C<sub>1</sub>-C<sub>8</sub>alkyl, or together form an alkylene bridge having two or three carbon atoms, and said alkylene bridge may additionally contain a hetero atom selected from the group consisting of NR<sub>5</sub>, O and S,

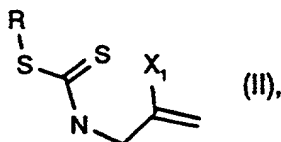
R<sub>3</sub> is H or unsubstituted or R<sub>4</sub>-substituted C<sub>1</sub>-C<sub>12</sub>alkyl,

R<sub>4</sub> is unsubstituted or substituted aryl or heteroaryl, and

R<sub>5</sub> is H or C<sub>1</sub>-C<sub>12</sub>alkyl;

which comprises

- a) reacting a compound of the formula



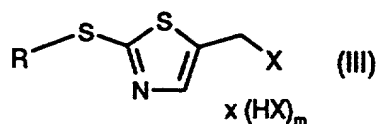
and, where applicable, its E/Z-isomers, mixtures of E/Z-isomers and/or tautomers, in each case in free form or in salt form, wherein

R is unsubstituted or substituted C<sub>1</sub>-C<sub>12</sub>alkyl, unsubstituted or substituted C<sub>2</sub>-C<sub>4</sub>alkenyl, unsubstituted or substituted C<sub>2</sub>-C<sub>4</sub>alkynyl, unsubstituted or substituted C<sub>3</sub>-C<sub>6</sub>cycloalkyl, unsubstituted or substituted aryl, unsubstituted or substituted heterocyclyl, or -SR<sub>6</sub>; and

$R_6$  is unsubstituted or substituted  $C_1$ - $C_{12}$ alkyl, unsubstituted or substituted  $C_2$ - $C_4$ alkenyl, unsubstituted or substituted  $C_2$ - $C_4$ alkynyl, unsubstituted or substituted  $C_3$ - $C_6$ cycloalkyl, unsubstituted or substituted aryl or unsubstituted or substituted heterocycyl,

$X_1$  is a leaving group;

with a halogenating agent, in the presence of a base, to form a compound of the formula



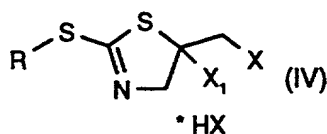
or, where applicable, an *E/Z*-isomer, a mixture of *E/Z*-isomers and/or a tautomer thereof, wherein

$R$  is as defined for formula (II);

$m$  is 0 or 1; and

$X$  is halogen; or

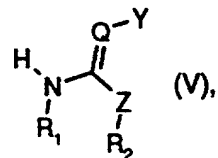
b) converting a compound of formula (II) by means of a halogenating agent into a compound of the formula



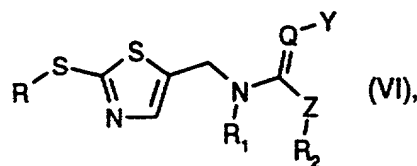
or, where applicable, an *E/Z*-isomer, a mixture of *E/Z*-isomers and/or a tautomer thereof, wherein  $R$ ,  $X$  and  $X_1$  are as defined for formulae (II) and (III); optionally

c) converting a compound of formula (IV), in the absence or in the presence of a base, preferably in the presence of a base, into a compound of formula (III);

d) converting a compound of formula (III) by reacting with a compound of the formula



or, where applicable, an *E/Z*-isomer, a mixture of *E/Z*-isomers and/or a tautomer thereof, in each case in free form or in salt form, wherein  $R_1$ ,  $R_2$ ,  $Y$ ,  $Z$  and  $Q$  are as defined for the compound of formula (I), into a compound of the formula



or, where applicable, an *E/Z*-isomer, a mixture of *E/Z*-isomers and/or a tautomer thereof, in each case in free form or in salt form, and wherein  $R_1$ ,  $R_2$ ,  $Y$ ,  $Z$  and  $Q$  are as defined above for the compound of formula (I) and  $R$  is as defined above for the compound of formula (II); or

e) converting a compound of formula (IV) by reaction with a compound of formula (V) into a compound of formula (VI); and

f) converting a compound of formula (VI) by means of a chlorinating agent into a compound of formula (I);

and in each case, if desired, converting a compound of formula (I) obtainable in accordance with the process or by another method, or an *E/Z*-isomer or tautomer thereof, in each case in free form or in salt form, into a different compound of formula (I) or an *E/Z*-isomer or tautomer thereof, in each case in free form or in salt form, separating a mixture of *E/Z*-isomers obtainable in accordance with the process and isolating the desired isomer, and/or converting a free compound of formula (I) obtainable in accordance with the process or by another method, or an *E/Z*-isomer or tautomer thereof, into a salt or converting a salt, obtainable in accordance with the process or by another method, of a compound of formula (I) or of an *E/Z*-isomer or tautomer thereof into the free compound of formula (I) or an *E/Z*-isomer or tautomer thereof or into a different salt.

2. A process according to claim 1, wherein in the compound of formula (I)

$R_1$  and  $R_2$  in the compounds of formulae (I), (V) and (VI) are either each independently of the other hydrogen or  $C_1$ - $C_4$ alkyl, or together form a alkylene bridge containing 2 or 3 carbon atoms, that may additionally contain a hetero atom selected from the group consisting of O and S, or may contain the group  $NR_5$ , and

$R_5$  is H or  $C_1$ - $C_4$ alkyl.

3. A process according to claim 1, wherein

$R$  in the compounds of the formulae (II), (III), (IV) and (VI) is unsubstituted or substituted  $C_1$ - $C_{12}$ alkyl; unsubstituted or substituted aryl- $C_1$ - $C_4$ alkyl; unsubstituted or halo-substituted heterocycyl- $C_1$ - $C_4$ alkyl, aryl- $C_2$ - $C_4$ alkenyl or heterocycyl- $C_2$ - $C_4$ alkenyl; unsubstituted or halo-

substituted C<sub>2</sub>-C<sub>4</sub>alkenyl, C<sub>2</sub>-C<sub>4</sub>alkynyl, aryl-C<sub>2</sub>-C<sub>4</sub>alkynyl, heterocycyl-C<sub>2</sub>-C<sub>4</sub>alkynyl or C<sub>4</sub>-C<sub>6</sub>cycloalkyl; unsubstituted or halo-, C<sub>1</sub>-C<sub>4</sub>alkyl-, HO-C<sub>1</sub>-C<sub>4</sub>alkyl- or HS-C<sub>1</sub>-C<sub>4</sub>alkyl-substituted aryl; unsubstituted or halo- or C<sub>1</sub>-C<sub>4</sub>alkyl-substituted heterocycyl; -CH<sub>2</sub>-COO-C<sub>1</sub>-C<sub>8</sub>alkyl, -CH<sub>2</sub>-CO-C<sub>1</sub>-C<sub>8</sub>alkyl, SR<sub>6</sub>, -(CH<sub>2</sub>)<sub>n</sub>-SR<sub>6</sub> or -CH<sub>2</sub>-COO-M, wherein M is hydrogen or a cation; and  
n is from 1 to 8.

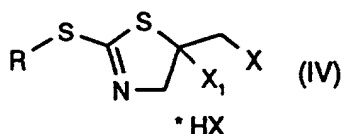
4. A process according to claim 1, wherein

R in the compounds of formulae (II), (III), (IV) and (VI) is SR<sub>6</sub> or -(CH<sub>2</sub>)<sub>n</sub>-SR<sub>6</sub> and

R<sub>6</sub> is C<sub>1</sub>-C<sub>8</sub>alkyl, aryl-C<sub>1</sub>-C<sub>4</sub>alkyl, arylthio-C<sub>1</sub>-C<sub>4</sub>alkyl, heterocycyl-C<sub>1</sub>-C<sub>4</sub>alkyl, heterocycylthio-C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>2</sub>-C<sub>4</sub>alkenyl, aryl-C<sub>2</sub>-C<sub>4</sub>alkenyl, heterocycyl-C<sub>2</sub>-C<sub>4</sub>alkenyl, C<sub>2</sub>-C<sub>4</sub>alkynyl, aryl-C<sub>2</sub>-C<sub>4</sub>alkynyl, heterocycyl-C<sub>2</sub>-C<sub>4</sub>alkynyl, cyclohexyl, aryl or heterocycyl; and  
n is 1 or 2.

5. A process according to claim 1, wherein in the compounds of formulae (III) and (IV) X is chlorine or bromine.

6. A compound of the formula



wherein

R is unsubstituted or substituted C<sub>1</sub>-C<sub>12</sub>alkyl, unsubstituted or substituted C<sub>2</sub>-C<sub>4</sub>alkenyl, unsubstituted or substituted C<sub>2</sub>-C<sub>4</sub>alkynyl, unsubstituted or substituted C<sub>3</sub>-C<sub>6</sub>cycloalkyl, unsubstituted or substituted aryl, unsubstituted or substituted heterocycyl, or -SR<sub>6</sub>; and

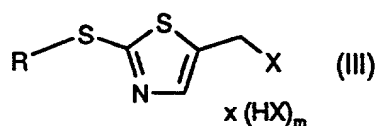
R<sub>6</sub> is unsubstituted or substituted C<sub>1</sub>-C<sub>12</sub>alkyl, unsubstituted or substituted C<sub>2</sub>-C<sub>4</sub>alkenyl, unsubstituted or substituted C<sub>2</sub>-C<sub>4</sub>alkynyl, unsubstituted or substituted C<sub>3</sub>-C<sub>6</sub>cycloalkyl, unsubstituted or substituted aryl or unsubstituted or substituted heterocycyl;

X is halogen; and

X<sub>1</sub> is a leaving group;

or, where applicable, an E/Z-isomer, a mixture of E/Z-isomers and/or a tautomer thereof.

7. A process for the preparation of a compound of the formula



or, where applicable, an *E/Z*-isomer, a mixture of *E/Z*-isomers and/or a tautomer thereof, wherein

**R** is unsubstituted or substituted  $C_1$ - $C_{12}$ alkyl, unsubstituted or substituted  $C_2$ - $C_4$ alkenyl, unsubstituted or substituted  $C_2$ - $C_4$ alkynyl, unsubstituted or substituted  $C_3$ - $C_6$ cycloalkyl, unsubstituted or substituted aryl, unsubstituted or substituted heterocyclyl, or  $-SR_6$ ; and

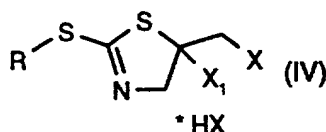
**R<sub>6</sub>** is unsubstituted or substituted  $C_1$ - $C_{12}$ alkyl, unsubstituted or substituted  $C_2$ - $C_4$ alkenyl, unsubstituted or substituted  $C_2$ - $C_4$ alkynyl, unsubstituted or substituted  $C_3$ - $C_6$ cycloalkyl, unsubstituted or substituted aryl or unsubstituted or substituted heterocyclyl,

**m** is 0 or 1; and

**X** is halogen;

which comprises reacting a compound of the formula (II), as defined in claim 1, with a halogenating agent, in the presence of a base.

8. A process for the preparation of a compound of the formula



or, where applicable, an *E/Z*-isomer, a mixture of *E/Z*-isomers and/or a tautomer thereof, wherein

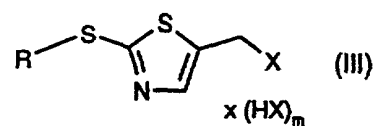
**R** is unsubstituted or substituted  $C_1$ - $C_{12}$ alkyl, unsubstituted or substituted  $C_2$ - $C_4$ alkenyl, unsubstituted or substituted  $C_2$ - $C_4$ alkynyl, unsubstituted or substituted  $C_3$ - $C_6$ cycloalkyl, unsubstituted or substituted aryl, unsubstituted or substituted heterocyclyl, or  $-SR_6$ ; and

**R<sub>6</sub>** is unsubstituted or substituted  $C_1$ - $C_{12}$ alkyl, unsubstituted or substituted  $C_2$ - $C_4$ alkenyl, unsubstituted or substituted  $C_2$ - $C_4$ alkynyl, unsubstituted or substituted  $C_3$ - $C_6$ cycloalkyl, unsubstituted or substituted aryl or unsubstituted or substituted heterocyclyl,

**X** is halogen;

which comprises reacting a compound of the formula (II), as defined in claim 1, with a halogenating agent.

9. A process for the preparation of a compound of the formula



or, where applicable, an *E/Z*-isomer, a mixture of *E/Z*-isomers and/or a tautomer thereof, wherein R, X and m are as defined in claim 7 for formula (III), which comprises treating a compound of the formula (IV), as defined in claim 6 with a base.

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